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Allen G Harbaugh (harbaugh@bu.edu), **Andrew S Richman*** (asrich@bu.edu) and **Suzanne Chapin** (schapin@bu.edu). *Evaluating Assessments for Learning in the Mathematics Classroom: An Item Response Theory Primer for Mathematics Educators.*

A number of key issues in psychometric measurement theory extend naturally into the classroom assessment setting. Item response theory (IRT, a latent variable analysis tool) can be used to jointly assess item-level difficulties and individuals' abilities. We argue that this aspect of assessment has too often been overlooked in mathematics classrooms. In particular, IRT allows an educator to (1) determine how well a test targets the intended audience, (2) assess test items for differential item functioning, and (3) evaluate the degree to which a test measures an intended unidimensional construct. Simply put, IRT is a tool allowing educators to confirm which—if any—of the items on their tests are measuring the same thing at varying levels of difficulty. To demonstrate the analysis, findings from The Elementary Pre-Service Teachers Mathematics Project will be presented. In this project, content-specific assessments (e.g., number theory) were administered to measure participants' pre to post gains. Using these data, we will demonstrate how an educator might use the information to revise the test or assess students. Finally, as IRT is often used with larger sample sizes, one of the issues to be discussed is how IRT can be used in classrooms with a reasonable number of students. (Received September 24, 2017)